

CLAIMS

1. A transmission apparatus that transmits a frequency division multiplexed transmission signal based on reception quality information indicating reception quality of a communicating party, the transmission apparatus comprising:

a determining section that determines a modulation and coding scheme parameter per frequency;

10 a detection section that detects a peak of a transmission signal;

a generation section that generates a waveform with an inverse characteristic of a waveform of the peak;

15 a combination section that combines the waveform of the transmission signal and the waveform with the inverse characteristic at a frequency corresponding to a modulation and coding scheme parameter of a lowest transmission efficiency among modulation and coding scheme parameters determined for respective frequencies; and

20 a transmission section that transmits the transmission signal combined with the waveform with the inverse characteristic.

2. The transmission apparatus according to claim 1,
25 further comprising a selection section that selects frequencies in ascending order of transmission efficiency of the modulation and coding scheme parameters every time

the peak is detected,

wherein the combination section combines the waveform of the transmission signal and the waveform with the inverse characteristic at selected frequencies.

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3. The transmission apparatus according to claim 1, wherein the detection section detects the peak in the transmission signal combined with the waveform with the inverse characteristic,

10 further comprising a selection section that, when no peak is detected in the transmission signal combined with the waveform with the inverse characteristic, selects remaining frequencies after frequencies are removed from the frequencies in a communication band in
15 descending order of transmission efficiency of corresponding modulation and coding scheme parameters,
and

wherein the combination section combines the waveform of the transmission signal and the waveform with
20 the inverse characteristic at the remaining frequencies.

4. The transmission apparatus according to claim 3,
wherein the selection section repeats the processing of removing frequencies from the frequencies in the
25 communication band in descending order of transmission efficiency of corresponding modulation and coding scheme parameters a predetermined number of times at a maximum.

5. The transmission apparatus according to claim 1,
wherein the combination section combines the waveform
of the transmission signal and the waveform with the
5 inverse characteristic on a frequency axis.

6. The transmission apparatus according to claim 1,
further comprising an inverse orthogonal transform
section that performs an inverse orthogonal transform
10 on the transmission signal,

wherein the combination section combines the
transmission signal subjected to the inverse orthogonal
transform and the waveform with the inverse
characteristic.

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7. A peak suppression method for suppressing a peak
in a frequency division multiplexed transmission signal
based on reception quality information indicating
reception quality of a communicating party, the method
20 comprising the steps of:

determining a modulation and coding scheme parameter
per frequency;

detecting a peak of a transmission signal;

generating a waveform with an inverse characteristic
25 of a waveform of the peak; and

combining the waveform of the transmission signal
and the waveform with the inverse characteristic at a

frequency corresponding to the modulation and coding scheme parameter of a lowest transmission efficiency among the modulation and coding scheme parameters determined for respective frequencies.